



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/997,336

11/29/2001

Yakov Kamen

007287.00019

4993

22907 7590 06/23/2009

BANNER & WITCOFF, LTD.

1100 13th STREET, N.W.

SUITE 1200

WASHINGTON, DC 20005-4051

EXAMINER

VAN HANDEL, MICHAEL P

ART UNIT

PAPER NUMBER

2424

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/997,336	Applicant(s) KAMEN ET AL.	
	Examiner MICHAEL VAN HANDEL	Art Unit 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-9,11,12,14-17 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-9, 11, 12, 14-17, 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/04/2009 has been entered.

Response to Amendment

1. This action is responsive to an Amendment filed 5/04/2009. Claims **1, 3, 4, 6-9, 11, 12, 14-17, 19-28** are pending. Claims **1, 4, 9, 12, 16, 17, and 20** are amended. Claims **2, 5, 10, 13, 18, 29, and 30** are canceled.

Response to Arguments

1. Applicant's arguments regarding the Fleischer, Kudrolli et al., Knauff et al., Hejna, Jr., and Wehmeyer references with respect to claims **1, 9, and 17**, filed 5/04/2009, have been considered, but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments regarding the Davis et al. reference with respect to claims **1, 9, and 17**, filed 5/04/2009, have been fully considered, but they are not persuasive.

Regarding claims **1, 9, and 17**, the applicant argues that Davis et al. does not teach or suggest determining a plurality of essential words in a program title or removing an essential

Art Unit: 2424

word if the number of characters necessary to display the plurality of essential words is greater than the specified number of characters. The examiner respectfully disagrees. Davis et al. discloses an interactive computer program used to edit program listings data (col. 17, l. 44-46). A data processor determines how much space is required to display a title based on its character length (col. 18, l. 1-3). If the data processor determines that a full title requires too much space to fit into one or more grid cells and if the title has not been previously edited, the title is presented to an editor using a display device connected to the data processor. The editor is then queried to alter the title, so that it will fit in the allotted space (col. 18, l. 12-21). Figure 11a clearly illustrates that the editor found the words “BEST,” “SHOW,” and “TODAY,” as being meaningful for display, but in reduced 60 and 30 minute grid slots found the words “BEST” and “SHOW” as being more meaningful than “TODAY.” The examiner interprets these functions to be “determining at least two meaningful words in a program title of an electronic program guide, wherein each of the at least two meaningful words appears at least once in a database, the at least two meaningful words including a first word and a second word” as currently claimed. The edits are then stored in a library of shortened titles (col. 18, l. 35-43; col. 19, l. 38-43; & Figs. 10A, 11a, 11b).

The examiner notes that the next time the program title needs to be edited, the data processor again analyzes the listings data to determine what grid size listings are needed for each title and determines how much space is required to display the title based on its character length (col. 17, l. 63-67 & col. 18, l. 1-3). If the data processor determines that a full title requires too much space to fit into one or more grid cells, the title is compared with a stored library of shortened titles to determine if the title had previously been shortened while editing another

Art Unit: 2424

listings database (col. 18, l. 35-39). In this case it has, since the title was previously edited as mentioned above. The data processor is programmed to retrieve the longest title that will fit in the designated grid cell (col. 19, l. 26-27). As illustrated in Fig. 11a, for a 90 minute grid cell, the words “THE,” “BEST,” “SHOW,” and “TODAY” had been previously determined to be the most important words to keep in a 90 minute cell. As such, the examiner interprets these words as “essential” words as claimed. If the grid cell will not fit the 90 minute cell title, the data processor will retrieve the 60 minute or 30 minute title from the database instead. The examiner interprets these functions to be “determining a plurality of essential words of the program title,” “determining the number of characters necessary to display the plurality of essential words,” and “removing an essential word if the number of characters necessary to display the plurality of essential words is greater than the specified number of characters, to create an abbreviated program title,” as currently claimed. Davis et al. does not specifically teach “determining the first word appears in the database at a greater frequency than the second word” and “determining that the first word is a less descriptive word in response to determining the first word appears in the database with a greater frequency than the second word;” however, these limitations are met by Fleischer as addressed in the previous Office Action and the current Office Action below.

The examiner further notes that claims 1, 9, and 17 recite “removing an essential word *if* the number of characters necessary to display the plurality of essential words is greater than the specified number of characters, to create an abbreviated program title” (italicized for emphasis). That is, the essential word is only removed if the number of characters is greater than the specified number of characters. In a situation where the title fits within the title cell, this limitation does not occur. As such, a situation where the text of Davis et al. fits within the grid

Art Unit: 2424

cell also meets the limitations of “determining a plurality of essential words of the program title” and “determining the number of characters necessary to display the plurality of essential words” and does not require meeting the limitation of removing an essential word, since the number of characters fits. This teaching of Davis et al. also meets the limitations as claimed; however, the examiner makes note of the above-mentioned teaching of Davis et al. in an effort to expedite prosecution.

Claim Objections

1. Claims **8**, **19**, and **20** are objected to because of the following informalities:

Referring to claim **8**, the examiner notes that the claim is dependent on claim 5, which is a canceled claim. The examiner recommends that the claim be amended to depend from claim 4. The examiner interprets the claim in the Office Action below as though the recommended changes have been made.

Referring to claim **19**, the examiner notes that the phrase “the nonessential” lacks antecedent basis. The examiner recommends that Applicant change the phrase to recite “the nonessential” and interprets the claim in the Office Action below as though the recommended changes have been made.

Referring to claim **20**, the examiner notes that the phrase “the nonessential” lacks antecedent basis. The examiner recommends that Applicant change the phrase to recite “the nonessential” and interprets the claim in the Office Action below as though the recommended changes have been made.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims **9, 11, 12, 14-16**, and **22** are rejected under 35 U.S.C. 101, because the claimed invention is directed to non-statutory subject matter.

Referring to claims **9, 11, 12, 14-16**, and **22**, the examiner notes that the claim is directed towards a machine-readable medium; however, Applicant's specification states that the machine-readable medium may include a mechanism that provides (i.e., stores and/or *transmits*) information in a form readable by a machine such as computer or digital processing device (italicized for emphasis)(p. 7, paragraph 22 of Applicant's specification). The examiner notes that a claim directed to a signal or law of nature *per se* does not appear to be a process, machine, manufacture, or composition of matter. The examiner recommends that the specification be amended to remove the phrase "and/or transmits." See **MPEP 2106.01** for guidance.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2424

2. Claims **1, 9, 17, 21-23, 25, 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Fleischer.

Referring to claims **1, 9, and 17**, Davis et al. discloses a method/machine-readable medium/apparatus comprising:

- determining at least two meaningful words in a program title of an electronic program guide, wherein each of the at least two meaningful words appears at least once in a database, the at least two meaningful words including a first word and a second word (if a title has not been previously edited and the title is too long for its grid size, an editor edits the title to fit the grid. Figure 11a illustrates that the editor found the words “BEST,” “SHOW,” and “TODAY,” as being meaningful for display, but in reduced 60 and 30 minute grid slots found the words “BEST” and “SHOW” as being more meaningful than the word “TODAY.” The edits are then stored in a library of shortened titles)(col. 18, l. 12-21, 35-43; col. 19, l. 38-43; & Figs. 10A, 11a, 11b);
- selectively removing a less descriptive word from the program title (col. 18, l. 12-21);
- determining a plurality of essential words of the program title (col. 17, l. 60-67 & Fig. 11a);
- determining the number of characters necessary to display the plurality of essential words (col. 18, l. 1-3); and
- removing an essential word if the number of characters necessary to display the plurality of essential words is greater than the specified number of characters, to create an abbreviated program title (col. 18, l. 35-43 & Figs. 10A, 10B); and

Art Unit: 2424

- displaying the abbreviated program title in a program title field of the electronic program guide (Figs. 5a-5c, 7a-7c, & 11a).

Davis et al. further discloses a library of shortened titles for determining if a title has been previously shortened (col. 18, l. 35-45). Davis et al. does not specifically disclose determining that the first word appears in the database at a greater frequency than the second word and determining that the first word is a less descriptive word in response to determining the first word appears in the database with a greater frequency than the second word. Fleischer discloses condensing text by determining words and phrases of greatest significance. Fleischer discloses determining how frequently words and word phrases appear and determining that words and word phrases that appear less frequently have greater significance (col. 1, l. 55-59; col. 3, l. 18-22, 27-30, 40-50; & col. 4, l. 53-64). For example, if the noun phrase “black cat” appears 20 times in a document and the noun phrase “green cat” appears 15 times in the document, the phrase “green cat” is maintained in the summarized text, since it is not as frequently used and is determined to be more suggestive of the document’s subject. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to include a step of determining meaningful words from the database of Davis et al. to automatically remove words on the basis of frequency appearance, such as that taught by Fleischer in order to provide automatic means for providing a sufficient synopsis of material for a reader (Fleischer col. 1, l. 25-31).

Further referring to claim 17, Davis et al. discloses a memory 115 (col. 17, l. 49-50 & Fig. 1).

Art Unit: 2424

Referring to claims **21-23**, the combination of Davis et al. and Fleischer teaches the method/machine-readable medium/apparatus of claims 1, 9, and 17, respectively, wherein in addition to removing the less descriptive word, the method further includes:

- parsing the text of the program title (Davis et al. col. 17, l. 48-50, 60-67; col. 18, l. 1-3, 13-21; & Figs. 10A, 11a);
- determining at least one nonessential, nonrelational word of the program title (Davis et al. col. 18, l. 12-21; col. 19, l. 38-43; & Figs. 10A, 11a); and
- removing the nonessential, nonrelational word from the program title (Davis et al. Figs. 10A & 11a).

Referring to claim **25**, the combination of Davis et al. and Fleischer teaches the apparatus of claim 17, wherein the apparatus is a head end (Davis et al. Fig. 1).

Referring to claim **28**, the combination of Davis et al. and Fleischer teaches the method of claim 1, wherein the database includes a database of program titles (Davis et al. col. 18, l. 35-43).

3. Claims **3, 4, 8, 11, 12, 16, 19**, and **20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Fleischer and further in view of Kudrolli et al.

Referring to claims **3, 11**, and **19**, the combination of Davis et al. and Fleischer teaches the method/machine-readable medium/apparatus of claims 1, 9, and 17, respectively. The combination of Davis et al. and Fleischer further teaches parsing the text of the program title (Davis et al. col. 17, l. 48-50, 60-67; col. 18, l. 1-3, 13-21; & Figs. 10A, 11a), determining at least one nonessential, nonrelational word of the program title (Davis et al. col. 18, l. 12-21; col.

Art Unit: 2424

19, l. 38-43; & Figs. 10A, 11a), and removing the nonessential, nonrelational word from the program title (Davis et al. Figs. 10A & 11a). The combination of Davis et al. and Fleischer does not specifically teach:

- determining at least one relational word of the program title; and
- replacing the at least one relational word with a representative character.

Kudrolli et al. discloses replacing the word “and” with the character “&” in order to cope with display space constraints in computer software (Fig. 20). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Davis et al. and Fleischer to include replacing the word “and” with the character “&,” such as that taught by Kudrolli et al. in order to make program guides more useful for a viewer and more pleasant to watch (Davis et al. col. 2, l. 38-41).

Referring to claims **4**, **12**, and **20**, the combination of Davis et al., Fleischer, and Kudrolli et al. teaches the method/machine-readable medium/apparatus of claims 1, 11, and 17, respectively, further parsing the text of the program title (Davis et al. col. 17, l. 48-50, 60-67; col. 18, l. 1-3, 13-21; & Figs. 10A, 11a), determining at least one nonessential, nonrelational word of the program title (Davis et al. col. 18, l. 12-21; col. 19, l. 38-43; & Figs. 10A, 11a), removing the nonessential, nonrelational word from the program title (Davis et al. Figs. 10A & 11a), determining at least one relational word of the program title (Kudrolli et al. Fig. 20), and replacing the at least one relational word with a representative character (Kudrolli et al. Fig. 20). The combination of Davis et al., Fleischer, and Kudrolli et al. further teaches including abbreviating at least one of the plurality of essential words if the number of characters necessary

Art Unit: 2424

to display the plurality of essential words is greater than the specified number of characters (Kudrolli et al. col. 7, l. 48-55).

Referring to claims **8** and **16**, the combination of Davis et al., Fleischer, and Kudrolli et al. teaches that an essential word occurring most frequently in a database is removed (Kudrolli et al. col. 7, l. 40-47).

4. Claims **6**, **14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Fleischer and further in view of Knauft et al.

Referring to claims **6** and **14**, the combination of Davis et al. and Fleischer teaches the method/machine-readable medium of claims 21 and 22, respectively. The combination of Davis et al. and Fleischer does not specifically teach that the at least one nonessential, nonrelational word comprises all of the words selected from the group consisting of adverbs, adjectives, prepositions, and articles. Knauft et al. discloses an electronic document retrieval system that removes adjectives or adverbs from the document prior to presenting the document to an information retrieval (IR) engine. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Davis et al. and Fleischer to include removing adjectives or adverbs from an electronic document prior to its presentation such as that taught by Knauft et al. in order to provide information to a system that is almost as usable as the original (Knauft et al. col. 2, l. 31-33).

NOTE: The USPTO considers the applicant's "selected from the group consisting of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Art Unit: 2424

5. Claims **7, 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Fleischer, further in view of Kudrolli et al., and still further in view of Hejna, Jr.

Referring to claims **7** and **15**, the combination of Davis et al., Fleischer, and Kudrolli et al. teaches the method/machine-readable medium of claims 4 and 12, respectively. The combination of Davis et al., Fleischer, and Kudrolli et al. does not specifically teach that the at least one essential word comprises all of the words selected from the group consisting of subject, object nouns, and verbs. Hejna, Jr. discloses removing articles and adjectives from conceptual information contained within TV broadcasts to provide output comprised only of nouns and noun phrases (col. 14, l. 16-19 & col. 16, l. 46-51). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Davis et al., Fleischer, and Kudrolli et al. to include providing output comprised only of nouns and noun phrases, such as that taught by Hejna, Jr. in order to make a program guide more useful to a viewer and more pleasant to watch (Davis et al. col. 2, l. 38-41).

NOTE: The USPTO considers the applicant's "selected from the group consisting of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

6. Claims **24, 26, 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Fleischer and further in view of Wehmeyer.

Referring to claim **24**, the combination of Davis et al. and Fleischer teaches the apparatus of claim 17. The combination of Davis et al. and Fleischer further teaches that the program listings data are edited through the use of a processor executing a text fit interactive computer program (Davis et al. col. 17, l. 44-46). The combination of Davis et al. and Fleischer also

Art Unit: 2424

teaches that program listings can be listed in an interactive program guide implemented on a cable converter box, the converter box containing processor and memory capabilities (Davis et al. col. 20, l. 1-4). The program schedule information is downloaded and stored in the converter box memory and can be controlled locally (Davis et al. col. 20, l. 18-21, 24-26). The combination of Davis et al. and Fleischer does not specifically teach that the text fit system is implemented on a set-top box. Wehmeyer discloses an interface for locally customizing program guide information containing program descriptions (see Abstract) in a cable converter box (col. 10, l. 51-62). Generic program guide information, including program identifiers, is received and stored in the cable converter box (col. 11, l. 11-22). The user may edit text in a cell of the electronic program guide (EPG) by highlighting a cell, selecting an edit text mode key, and entering the desired text. For example, the user may change the text "THE GOLDEN ERA" to "THE ERA" (col. 16, l. 50-64 & Fig. 8). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the text fit system of the combination of Davis et al. and Fleischer to be implemented on the cable converter box, rather than the head end, such as that taught by Wehmeyer in order to provide users with ways to customize the program guide list (Wehmeyer col. 2, l. 13-15).

Referring to claims **26** and **27**, the combination of Davis et al., Fleischer, and Wehmeyer teaches the apparatus of claim 24, wherein a satellite transmits a signal to a satellite dish connected to the set-top box (Davis et al. col. 5, l. 26-28), which is connected to a television, and wherein the television is the display device (Davis et al. col. 21, l. 4-8 & Fig. 12).

Conclusion

Art Unit: 2424

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL VAN HANDEL whose telephone number is (571)272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Kelley/
Supervisory Patent Examiner, Art Unit
2424

MVH